



**COUNCIL OF
THE EUROPEAN UNION**

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NOTE

from: General Secretariat
to: Delegations

Subject: Micro-plastic litter: a growing environmental problem
- Information from the Netherlands delegation

Delegations will find in Annex an information note from the Netherlands delegation on the above-mentioned subject, which will be dealt with under "other business" at the Council (Environment) meeting on 18 June 2013.

Micro-plastic litter: a growing environmental problem

- Information from the Netherlands delegation -

The Netherlands invites EU member states and the European Commission to start a discussion on the occurrence of micro-plastics in water systems and to propose a way forward on this issue.

The European Commission recently published a Green Paper on a European Strategy on Plastic Waste in the Environment.¹ In this Green Paper the European Commission mentions micro-plastics as one of the public policy challenges posed by plastic waste.

Micro-plastics are an important category of marine litter referred to in the EU Marine Strategy Framework Directive (MSFD), for which Member States will have to develop (future) targets and measures.

Micro-plastics are small plastic particles that can persist in the environment for hundreds of years.

Sources include:

- plastic waste from land- and sea-based sources that degrades into smaller particles;
- micro-plastics which are increasingly being used in industry, household products and cosmetics (e.g. scrubs or toothpaste).

The Green Paper also points out that the concentration of micro-plastics in water is sometimes higher than that of plankton.

¹ COM(2013) 123 final

Plastics contain chemical additives. These chemicals can be released and enter the marine environment. Micro-plastics can adsorb toxic additives like PCBs or DDT. Relatively high concentrations of toxic substances have been found on micro-plastics.¹ Micro-plastics can enter the food chain through ingestion by marine fauna like sea cucumbers, plankton and mussels. Micro-plastics may harm plankton and mussels. The findings of a recent study on plankton² imply that micro-plastics can negatively impact upon zooplankton function and health if ingested in large quantities. Studies on mussels^{3,4} show the same result.

The potential ecological and human health risks of micro-plastics are a relatively new area of scientific research. Although there is still a large degree of uncertainty, what we already know gives us cause for concern. In this case, the precautionary principle applies.

The Netherlands believes that part of the solution would be to develop an EU policy that focuses on the sources of micro-plastics. Furthermore, since the cosmetics industry is already starting to take its share of responsibility, we would suggest considering a European ban on micro-plastics in cosmetics as a possible measure. According to the Dutch association of manufacturers and importers of cosmetics, or products for personal care, Beiersdorf, Unilever, Colgate-Palmolive and L'Oréal Group are examples of companies that will stop using micro-plastic scrub beads in their cosmetic products.

¹ Mato Y., et al., 'Plastic Resin Pellets as a Transport Medium of Toxic Chemicals in the Marine Environment', *Environmental Science & Technology*, 2001, 35 (2), p.318-324

² Cole M, et al., 'Micro-plastic ingestion by zooplankton', *Environmental Science & Technology*, 2013

³ Von Moos, N., et al., 'Uptake and effects of microplastics on cells and tissue of the blue mussel *Mytilus edulis* L. after an experimental exposure', *Environmental Science & Technology*, 2012, 46 (20), pp 11327–11335

⁴ Besseling, E. et al.: 'Effects of microplastic on fitness and PCB bioaccumulation by the lugworm *Arenicola marina* (L.)', *Environmental Science & Technology*, 2013, 47 (1), pp 593–600